

ABSTRACT OF THE DISCLOSURE

An optical power control apparatus, an optical power control method and an optical power control program for reducing the effect of coherent crosstalk noise in between optical signals having the same wavelength when at least multiplexing optical signals of respective channels. In an optical intermediate node with a level equalizer, a pre-amplifier amplifies a WDM (Wavelength Division Multiplexing) optical signal. Subsequently, a first arrayed waveguide grating included in a level equalizer demultiplexes the WDM optical signal into optical signals corresponding to respective channels. The demultiplexed optical signals each having passed through an attenuator of each channel are multiplexed by a second arrayed waveguide grating. An OSC termination section feeds an apparatus controller with channel alive information indicating the presence or absence of an optical signal with respect to each channel. Based on the channel alive information, the insertion loss at an attenuator corresponding to the channel where no optical signal has been transmitted is increased to maximum so that the multiplexing of an optical signal which has leaked into the channel is reduced. Besides, failures in attenuators can be detected making use of photodiodes.